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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/564,501
Filing Date: July 05, 2006
Appellant(s): GIRON ET AL.

Daniel Pereira
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/28/10 appealing from the Office action mailed 01/29/10.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The following is a list of claims that are rejected and pending in the application:

Claims 1-18, 21 and 22.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The examiner has no comment on the appellant's statement of the grounds of rejection to be reviewed on appeal. Every ground of rejection set forth in the Office action from which the appeal is taken (as modified by any advisory actions) is being maintained by the examiner except for the grounds of rejection (if any) listed under the subheading "WITHDRAWN

REJECTIONS.” New grounds of rejection (if any) are provided under the subheading “NEW GROUNDS OF REJECTION.”

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant’s brief.

(8) Evidence Relied Upon

WO 2002/006889	Giron et al.	01-2002
U.S. 2004/0053125	Giron et al.	03-2004
U.S. 6,294,233	Barth et al.	09-2001
U.S. 6,284,360	Johnson et al.	09-2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-11, 15-18, 21 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giron et al. (WO/2002/006889), see English language equivalent Giron et al. (U.S. 2004/0053125) in view of Barth et al. (U.S. 6,294,233).

Regarding claim 1, Giron et al. discloses a glazing assembly, which reads on the limitations of instant claim 1.

(See [0020]-[0024], the active layers (i.e. electrochromic system layers) and the protective polymer layer lie in between the two rigid substrates. The order of the layers is disclosed at [0080]: rigid glass substrate (1), active stack (2) (3) and (4), EVA film (not shown in Figs.) and second rigid glass substrate (5). The presence of the EVA film between the active component of the glazing and the second glass layer is further disclosed at [0024] and [0025]. The first rigid glass substrate is a “protective” substrate in that it provides a degree of protection to the internally laminated active stack. The

second rigid substrate is a "carrier" substrate in that it is bonded to and carries the active stack and the EVA film.)

While Giron et al. does not explicitly disclose that the polymer layer functions to retain fragments of the glazing assembly should the assembly break, in light of the substantially identical polymer layer thickness and composition (i.e. polyurethane ([0024]) 0.8 mm thick ([0091])) with the instant disclosed polymer layer, (See instant specification, page 9, lines 1-5), it will, intrinsically, possess the claimed properties, absent any objective evidence to the contrary. See MPEP 2112 (In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

Giron et al. does not explicitly disclose an additional solar protective layer being positioned on the outer face of the first substrate, however, Barth et al., which is also directed towards optically functional glass based panels, discloses that solar protective films, which could be affixed to the outer surface of glass panels, were known to those having ordinary skill at the time of the invention (C1, L25-50). One having ordinary skill in the art would have found it obvious to have provided one of solar protective films of Barth et al. to the outer surface of the substrates of the panel of Giron et al. in order to improve the protection from solar radiation (C1, L15-25).

Regarding the "faces outside towards the sun" limitation, this limitation is intended to specify the orientation of the glazing upon its final application. One having ordinary skill in the art would have found it obvious to have applied the glazing of Giron et al. in both orientations (i.e. active stack adjacent substrate facing inward and facing outward) when designing the appropriate manner for installing it, for example, in an automobile.

Regarding claims 2, 3, 9 and 10, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a glazing assembly which reads on claims 2, 3, 9 and 10.

(See Abstract, the active system in the assembly is electrochromic, which provides and optical function (reads on claims 2 and 3). See [0124], the screen-printing of conductive strips in place of the wires which lie along the periphery of the substrates (Fig. 7, 14a-c, 15a-c) is disclosed. These conductive strips would alter the opacity of the substrate to some degree and therefore would constitute an opacifying coating (i.e. reads on claim 9). See [0040]-[0046], the deactivated lower electroconductive layer along the periphery of the substrate, (deactivated via localized ablation, [0046]), constitutes a margining line (reads on claim 10).)

Regarding claims 4-8, 21 and 22, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a glazing assembly which reads on claims 4-8, 21 and 22.

(See [0091]-[0092], the two substrates are of glass (reads on claim 4) about 2mm thick each, and the plastic layer is 0.8mm thick, which makes a total thickness of 2.8mm thick. The other layers deposited in the assembly have a maximum disclosed total thickness of 1340 nm or 0.00134mm (i.e. $20+350+100+100+100+370+300$ nm), making the total assembly thickness 2.80134mm, which lies within the ranges of instant claims 5 and 6. The two glass substrates are about 2mm thick each, which makes them substantially the same dimension and they have identical rectangular shapes (reads on claim 7), while in Fig. 4 ([0107]), one glass pane is smaller than the other, giving it the

same shape with different dimensions (reads on claim 8). See [0074], the glass laminates may be curved (reads on claim 21). See [0070], the glass substrates are disclosed as being bulk tinted, which gives them a degree of opacity and therefore makes them opacified substrates (reads on claim 22).)

Regarding claims 11, 15 and 16, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a glazing assembly which reads on claims 11, 15 and 16.

(See [0069]-[0070], an insulating polymer film frame is disclosed to lie around the periphery of the substrates as a seal (reads on claim 11), with two of its sides having flexible conductive current leads or conductive coatings which serve as connection elements (reads on claim 16) for the active system within the frame and also provide a degree of mechanical reinforcement for the polymer seal. Also, the polymer film frame is positioned on, and at least partially fills, the marginal deactivated areas, which, being deactivate via ablation, constitute open groove spaces between the two substrates (reads on claim 15).

Regarding claim 17, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally, the reference discloses a method of forming an article comprising, forming an article with a glazing assembly; wherein the article is selected from the group consisting of a window, a sunroof, a skylight, a display panel, a display case, and a piece of furniture.

(See [0080]-[0092], the method for making assembly is disclosed. See [0074], an embodiment of the assembly in an automobile roof (i.e. sunroof) is disclosed.)

Regarding claim 18, Giron et al. discloses all of the claimed limitations as set forth above.

Giron et al. does not explicitly disclose the specific passing of the safety tests of the ECE R43 and ANSI Z26.1 standards for the glazing assembly. However, in light of the substantially identical glass substrate thickness, polymer layer composition and thickness and the substantially identical sealants in the glazing assembly of Giron et al. with the instant glazing assembly, it will, inherently, possess the claimed properties, absent any objective evidence to the contrary. See MPEP 2112 (In re Fitzgerald, 619 F.2d 67, 70, 205 USPQ 594, 596 (CCPA 1980).

Claims 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Giron et al. (WO/2002/006889) in view of Barth et al. (U.S. 6,294,233) as applied to claims 1 and 11 above, and further in view of Johnson et al. (U.S. 6,284,360).

Regarding claims 12-14, modified Giron et al. discloses all of the claimed limitations as set forth above. Additionally Giron et al. discloses a glazing assembly used in an embodiment for a vehicle sun roof, ([0074]), which would require a secondary frame seal to mount the assembly into the vehicle.

Giron et al. does not disclose a glazing assembly which explicitly meets the limitations of claims 12-14.

Johnson et al. discloses a sealant composition for use with motor vehicle windshields (See Abstract) which meets the limitations of claims 12-14.

(See Fig. 8, the seal encapsulates and is in contact with the edges of the windshield (reads on claims 12 and 13). Also see Fig. 7, the seal is flush with both outer faces of the windshield (reads on claim 14).)

The use of produce-by-process limitations has been noted in Claim 13, such as, for example, “seals are formed by extrusion or obtained by encapsulation.” While Johnson et al. **does** in fact teach these processes to produce seals, the examiner notes that even though a product-by-process is defined by the process steps by which the product is made, determination of patentability is based on the product itself. In re Thorpe, 777 F.2d 695, 227 USPQ 964 (Fed. Cir. 1985). As the court stated in Thorpe, 777 F.2d at 697, 227 USPQ at 966 (The patentability of a product does not depend on its method of production. In re Pilkington, 411 F.2d 1345, 1348, 162 USPQ 145, 147 (CCPA 1969). If the product in a product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process.).

Giron et al. discloses a glazing assembly for use in a vehicle sun roof without any specific mention of the means for mounting the glazing assembly and therefore it would have been obvious to look to other references for an appropriate vehicle mounting system (as in Johnson et al.). The inventions of both Giron et al. and Johnson et al. are drawn to the field of windshields and therefore it would have been obvious to one having ordinary skill in the art at the time of the invention to have included the sealant of Johnson et al. with the assembly of Giron et al. for the purposes of installing the windshield in the vehicle for which it is intended to reside.

(10) Response to Argument

Appellant argues that the primary Giron reference teaches a specific orientation for the multilayer stack (i.e. glazing). As a preliminary matter, the examiner notes that appellant all but concedes that the layers of the glazing are taught by Giron. Appellant's only issue with respect to the teaching of Giron is that the reference allegedly teaches that the polymeric layer is facing closer to the sun than the active layer (the layers being glass/polymer/active stack/glass). As explained in the previous office actions, the appellant is incorrect to say that Giron teaches how this multilayer stack should be oriented during installation in a vehicle (i.e. as a sunroof, see [0074]). Giron only teaches the stack of layers (i.e. glass/polymer/active stack/glass) and does not mention anywhere in their patent which layer is directed towards the outside or the sun and which is directed towards the interior or the user. Appellant mischaracterizes the reference with their drawing illustrating the two glazing assemblies in relation to the sun. There is nothing in the Giron reference to suggest any orientation of the glazing with respect to the sun, especially not the arrangement the appellant depicts in their drawing. Appellant also cites several paragraphs of Giron, bolding certain phrases such as "upper conductive layer," "above the eva film," "the carrier layer taken as a reference" etc. Appellant argues that these phrases imply that the order of the layers is disclosed with the respect to the sun; however, these phrases are only mentioned to explain the order of the layers in the stack and are not given with reference to any features, like the sun, which would require a particular arrangement during installation in a car.

In conclusion of this issue, Giron discloses a glass laminate having the general layer structure A/B/C/A. The language used to describe the order of the layers is only given in relation to the other layers. Given the use of the glass laminate for windows (i.e. in sun roof in cars) one

having ordinary skill would have exactly 2 obvious options in installing the window. Either the glass laminate could be installed A/B/C/A or A/C/B/A (i.e. by simply flipping the laminate). Without any discussion in Giron related to how the laminate should be installed, the particular arrangement appellant has claimed is only one of these two obvious arrangements for installing the glazing and is therefore obvious. Therefore, the first and second reversible errors alleged by the appellant are not errors. Giron does not teach a particular arrangement with respect to the sun and accordingly it would have been obvious to have arranged the glazing in the manner instantly claimed.

Appellant also argues that there are certain benefits for arranging the laminate in manner they have claimed that might rebut the assertion of obviousness (i.e. unexpected results). This is the third alleged reversible error. The examiner maintains that appellant has not provided evidence of unexpected results. Appellant argues there are several reason why one having ordinary skill in the art would think to arrange the structure in the opposite manner as instantly claimed (i.e. with the plastic closer to the sun). These reasons are conclusory and not supported by any evidence. Moreover, there are plenty of equally plausible reasons why one having ordinary skill would try arranging the polymeric layer closer to the user. Appellant also argues that the function of retaining glass fragments is an unexpected result. Again, the examiner maintains that such a function would not have been "unexpected." The examiner considers it entirely expected that a composite of glass and polymeric resin operates to prevent splinters of glass from injuring the user (i.e. safety glass). Since the active stack would prevent the polymer from catching the splinters of glass it would have been expected that placing the active stack away from the user would mean the splinters of glass from the second substrate would face away

from the user (the splinters from the other substrate being bound by the polymer layer laminated thereto, as with safety glass). In summation, appellant's argument of unexpected results is not presented with sufficient evidence and even if it were, the examiner does not consider the results to have been unexpected.

Appellant also argues that a curved structure would make the obvious flipping of the laminate less obvious. This would be the case if Giron taught that the curvature should be with respect to one particular substrate; however, the reference mentions the curvature of the substrate in the same general terms as it does when discussing the installation of the laminate in a car ([0074]). Therefore it would have been just as obvious, from an installation point of view, to have flipped the laminate either ways and then curved it accordingly, during the installation of the glazing in a car with a curved sun roof or the like.

Appellant argues that the secondary references do not bear on the above issues. The examiner agrees.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/Michael Nelson/

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